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916 F.2d 680, 16 U.S.P.Q.2d 1430, 59 USLW 2259

United States Court of Appeals,Federal Circuit.
In re Peter S. MILLS.
No. 90-1184.

Oct. 9, 1990.

Applicant appealed from order of the Board of Patent Appeals and Interferences which rejected claims. The Court of Appeals , Lourie, Circuit Judge, held that fact that referenced prior art might be capable of being modified to run the way claimed by applicant for his apparatus did not render his apparatus obvious.

Reversed.

West Headnotes

[1] **Patents 291 ⚿45**
291k45 Most Cited Cases
Determination of Board of Patent Appeals and Interferences that differences between the claim and machine described in prior art lay solely in the functional language of the claim suggested lack of novelty rather than obviousness. 35 U.S.C.A. § § 102 , 103.

[2] **Patents 291 ⚿314(5)**
291k314(5) Most Cited Cases
Nonobviousness is a question of law to be determined from the facts. 35 U.S.C.A. § 103.

[3] **Patents 291 ⚿113(6)**
291k113(6) Most Cited Cases
Board of Patent Appeals and Interferences' determination of obviousness is reviewed for correctness or error. 35 U.S.C.A. § 103.

[4] **Patents 291 ⚿16.24**
291k16.24 Most Cited Cases
Claim for apparatus for mixing cementitious material involving a pump means and feed means with a pumping capacity greater than the feed rate of the ingredients into the mixing chamber in order to draw air into the mixing chamber and entrain it in the mixed ingredients was not obvious in light of prior patent for mixing cementitious material through a device in which the pumping speed could be greater than the feed speed, as the prior device made no reference to producing area rated cementitious material. 35 U.S.C.A. § 103.

[5] **Patents 291 ⚿16(2)**
291k16(2) Most Cited Cases
Fact that prior art apparatus may be capable of being modified to run the way claimed by another's apparatus does not render the new apparatus obvious if there is no suggestion or motivation in the reference to do so. 35 U.S.C.A. § 103.

[6] **Patents 291 ⚿16(2)**
291k16(2) Most Cited Cases
On the issue of obviousness, it is not pertinent whether prior art device possesses the functional characteristics of the claimed invention if the reference does not describe or suggest its structure. 35 U.S.C.A. § 103.

Patents 291 ⚿328(2)
291k328(2) Most Cited Cases
2,717,770 , 4,117,547. Cited.

***680** James C. Wray, McLean, Va., argued for appellant.
Muriel E. Crawford , Asst. Sol., Office of the Sol., Arlington, Va., argued for appellee. With her on the brief was Fred E. McKelvey, Sol.

Before MAYER and LOURIE , Circuit Judges, and MILLER, Senior Circuit Judge.

***681** LOURIE, Circuit Judge.
This appeal is from the November 2, 1989, decision of the United States Patent and Trademark Office Board of Patent Appeals and Interferences (Board), Appeal No. 88-0141, affirming the examiner's rejection, under 35 U.S.C. § 103, of claims 6-9 and 11-14 in Mills' application Serial No. 891,374, a continuation of Serial No. 607-805, filed May 4, 1984, entitled "Methods of and Apparatus for Producing Aerated Cementitious Compounds." The remainder of the claims (1-5, 10, and 15) have all been cancelled. We reverse.

I

BACKGROUND

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A. *The Invention*

Mills' claimed invention is an apparatus for producing aerated cemetitious compositions. Claim 6 is the broadest claim:

> 6. Apparatus for producing an aerated cementitious composition, comprising
> a mixing chamber being open to atmosphere and containing mixing means,
> feed means for feeding ingredients comprising cement, foaming agent and liquid to the mixing chamber,
> mixing means for mixing ingredients fed to the mixing chamber, pump means for pumping the mixed ingredients to a desired site and having a pump inlet connected to an outlet of the mixing chamber,
> drive motor means connected through gearbox means providing a pumping capacity of the pump means greater than the feed rate of the ingredients to the mixing chamber provided by the feed means, such that in operation air is drawn into the mixing chamber, and entrained in the mixed ingredients.

The essence of Mills' invention is the machine's ability to aerate a cementitious composition by driving the output pump at a capacity greater than the feed rate, thereby drawing air into the composition. This aeration produces a composition with substantially lower density than standard cemetitious composition mixing ingredients.

B. *The Reference*

The sole reference upon which the Board relied in affirming the examiner's rejection was Mathis et al. U.S. Patent 4,117,547 (Mathis). FN1 Mathis discloses a mixing chamber which is open to the atmosphere and which contains a mixing means. Two feed means for feeding ingredients in the mixing chamber are provided. The first feed means may consist of a screw conveyer and the second, a flow metering device such as an adjustable valve. A pump means pumps the mixture from the mixing chamber to a desired site and a drive motor means is connected to mixing means and pump means. A separate motor drives the feed means.

> FN1. The examiner rejected the claims at issue under 35 U.S.C. § 103 as being unpatentable not only over Mathis but also in view of Gibson et al. U.S. Patent 2,717,770. However, the Board affirmed the examiner's rejection of claims 6-9 and 11-14 based solely on the Mathis reference. With regard to Gibson the Board stated:
> We view the teachings of Gibson at best as being merely confirmatory of the fact that aerated mixtures can be produced by machines in which a pump means operates upon a mixing chamber at a greater rate than the ingredients are fed thereunto so that air is drawn into the mixing chamber and entrained in the mixed ingredients.
> App. 2.

A control system exists to arrest the feed means so as not to overfill the mixing chamber. This system comprises a level detector in the mixing chamber, which signals the feed means to close when the mixing chamber stores the predetermined maximum permissible quantity of material.

C. *The Rejection*

The Board affirmed the examiner's Section 103 rejection of claims 6-9 and 11-14, "finding correspondence in the Mathis reference for all of the subject matter recited in the appellants' claims...." With regard to Mills' claim language relating to aerating the mixture, the Board stated: "[i]n our opinion, the differences between claim 6 and the Mathis machine ... lie solely in ***682** the functional language of the claim." The Board further found that Mathis teaches the use of separate input and output motors in order to permit the various mixing means and pumps to operate at different rates, and that Mathis "contemplates a situation wherein the rate of the outlet pump would be greater than the inlet pumps...." The Board concluded on this point: "[w]e are of the opinion that the Mathis machine is capable of being operated in such a fashion as to cause [the output] pump 18 to draw air into the mixing chamber 17 so that it is entrained in the mixture."

The Board also agreed with Mills' contention that Mathis is not directed to the problem of producing aerated cementitious material, but noted that Mills is not claiming a method, but an apparatus, and all of Mills' apparatus structure is present in the Mathis machine.

II

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DISCUSSION

[1] All of the rejected claims are apparatus claims. The Board found "correspondence in the Mathis reference for all of the subject matter recited in appellants' claims" and that "[t]he Mathis machine discloses all of the structure set forth in claim 1" (a method claim not before us). It asserts that the use of such a mechanism would have been obvious and that the differences between claim 6 and the Mathis machine lie solely in the functional language of the claim, the preamble merely stating an intended use for the machine. This language suggests a lack of novelty rejection under 35 U.S.C. § 102, rather than an obviousness rejection. However, no Section 102 rejection has been made or is before us. What is before us is a rejection for obviousness, and we must decide whether the Board erred in that rejection.

[2] [3] We note first that nonobviousness is a question of law to be determined from the facts. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1535, 218 USPQ 871, 876 (Fed.Cir.1983). We review the Board's determination of obviousness, based on the scope and content of the Mathis reference and the differences between the Mathis reference and the Mills claims, for correctness or error. *In re Carleton*, 599 F.2d 1021, 1024 n. 14, 202 USPQ 165, 169 n. 14 (CCPA 1979).

[4] [5] After reviewing the record, the arguments in the briefs, and the Mathis reference, we conclude that Mathis would not have rendered the claimed invention obvious. The closest Mathis comes to suggesting Mills' claimed apparatus is at column 3, lines 42-47, which states

> [T]he rate at which the inlet 2b receives a solid constituent depends on the speed of the feed screw 4. Such speed can be regulated by a prime mover 6 which includes a variable-speed transmission.

This brief reference contains no suggestion of "pump means and the feed means providing a pumping capacity of the pump means greater than the feed rate of ingredients to the mixing chamber provided by the feed means, such that in operation air is drawn into the mixing chamber, and air entrained in the mixed ingredients," as provided for in Mills' claim 6. While Mathis' apparatus may be capable of being modified to run the way Mills' apparatus is claimed, there must be a suggestion or motivation in the reference to do so. *See In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed.Cir.1984) ("The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification."). We see no such suggestion. The apparatus claimed by Mills is different from that of Mathis, since the fact that motor 6 of Mathis (the feed means) can be run at a variable speed does not require that motor 20 (connected to the pump) be run at a lesser speed "such that in operation air is drawn into the mixing chamber and air entrained in the mixed ingredients."

[6] The Board found that the difference between the claimed subject matter and the prior art resided solely in functional language and that appellant had to show that the prior art device lacked the functional characteristics of the claimed device, citing ***683** *In re Ludtke*, 441 F.2d 660, 58 C.C.P.A. 1159, 169 USPQ 563 (CCPA 1971). *Ludtke*, however, dealt with a rejection for lack of novelty, in which case it was proper to require that a prior art reference cited as anticipating a claimed invention be shown to lack the characteristics of the claimed invention. That proof would in fact negate the assertion that the claimed invention was described in the prior art. We are here, however, facing an obviousness issue. It is not pertinent whether the prior art device possesses the functional characteristics of the claimed invention if the reference does not describe or suggest its structure. That is the case here. Given the facts before us, we hold that the Board was in error in affirming the examiner's rejection of claims 6-9 and 11-13 as obvious in view of Mathis, and we therefore *reverse* the Board.

REVERSED.

C.A.Fed.,1990.
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